

EXHIBIT A

REGISTRATION RIGHTS AGREEMENT

This REGISTRATION RIGHTS AGREEMENT (this "Agreement"), dated as of March 31, 2006, is made by and between Earth Biofuels, Inc., a Delaware corporation (the "Company"), and Tom Groos (the "Investor").

WHEREAS:

A. In connection with the Convertible Promissory Note in the principal amount of \$450,000 of even date herewith by and between the Company and the Investor (the "Note"), the Company has agreed to issue to the Investor shares of the Company's common stock (the "Common Stock") upon the terms and subject to the limitations and conditions set forth in the Note; and

B. To induce the Investor to execute the Note, the Company has agreed to provide certain registration rights under the Securities Act of 1933, as amended, and the rules and regulations thereunder (collectively, the "1933 Act"), and applicable state securities laws;

NOW, THEREFORE, in consideration of the premises and the mutual covenants contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Company and the Investor hereby agree as follows:

1. DEFINITIONS.

As used in this Agreement, the following terms shall have the following meanings:

(i) "Investor" means the Investor and any transferee or assignee who agrees to become bound by the provisions of this Agreement in accordance with Section 9 hereof.

(ii) "register," "registered," and "registration" refer to a registration effected by preparing and filing a Registration Statement in compliance with the 1933 Act and pursuant to Rule 415 under the 1933 Act or any successor rule providing for offering securities on a continuous basis ("Rule 415"), and the declaration of effectiveness of such Registration Statement by the United States Securities and Exchange Commission (the "SEC").

(iii) "Registrable Securities" means the all of the shares of Common Stock issued or issuable upon conversion pursuant to the Note.

(iv) "Registration Statement" means a registration statement of the Company under the 1933 Act.

2. REGISTRATION.

a. **Mandatory Registration.** The Investor shall be entitled to make written request for registration of the Registrable Securities, no later than 90 days following conversion of the Note. Provided that the Investor has made a timely request therefore, the Company shall effect the registration of the Registrable Securities. Within forty-five (45) days of receipt of written request from the Investor, the Company shall file with the SEC a Registration Statement to effect the registration of the Registrable Securities that the Company has been requested to register for disposition as described in the request of the Investor.

b. **Piggy-Back Registrations.** Subject to the last sentence of this Section 2(b), if at any time prior to the expiration of the Registration Period (as hereinafter defined) the Company shall determine to file with the SEC a Registration Statement relating to an offering for its own account or the account of others under the 1933 Act of any of its equity securities (other than on Form S-4 or Form S-8 relating to equity securities to be issued solely in connection with any acquisition of any entity or business or equity securities issuable in connection with stock option or other employee benefit plans), the Company shall send to the Investor written notice of such determination and, if within fifteen (15) days after the effective date of such notice, the Investor shall so request in writing, the Company shall include in such Registration Statement all or any part of the Registrable Securities the Investor requests to be registered. If an offering in connection with which the Investor is entitled to registration under this Section 2(b) is an underwritten offering, then the Investor shall, unless otherwise agreed by the Company, offer and sell such Registrable Securities in an underwritten offering using the same underwriter or underwriters and, subject to the provisions of this Agreement, on the same terms and conditions as other shares of Common Stock included in such underwritten offering. Notwithstanding anything to the contrary set forth herein, the registration rights of the Investor pursuant to this Section 2(b) shall only be available in the event the Company fails to timely file, obtain effectiveness or maintain effectiveness of any Registration Statement to be filed pursuant to Section 2(a) in accordance with the terms of this Agreement.

c. **Eligibility for Form SB-2.** The Company represents and warrants that it meets the requirements for the use of SB-2 for registration of the sale by the Investor of the Registrable Securities. The Company agrees to file all reports required to be filed by the Company with the SEC in a timely manner so as to remain eligible or become eligible, as the case may be, and thereafter to maintain its eligibility, for the use of Form SB-2.

3. OBLIGATIONS OF THE COMPANY.

In connection with the registration of the Registrable Securities, the Company shall have the following obligations:

a. The Company shall keep the Registration Statement effective pursuant to Rule 415 at all times until such date as is the earlier of (i) the date on which all of the Registrable Securities have been sold and (ii) the date on which the Registrable Securities (in the opinion of counsel to the Investor) may be immediately sold to the public without registration or restriction (including, without limitation, as to volume by the holder thereof) under the 1933 Act (the "Registration Period"), which Registration Statement (including any amendments or

supplements thereto and prospectuses contained therein) shall not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein, or necessary to make the statements therein not misleading.

b. The Company shall prepare and file with the SEC such amendments (including post-effective amendments) and supplements to the Registration Statement and the prospectus used in connection with the Registration Statement as may be necessary to keep the Registration Statement effective at all times during the Registration Period, and, during such period, comply with the provisions of the 1933 Act with respect to the disposition of all Registrable Securities of the Company covered by the Registration Statement until such time as all of such Registrable Securities have been disposed of in accordance with the intended methods of disposition thereof as set forth in the Registration Statement.

c. The Company shall furnish to the Investor (i) promptly (but in no event more than two (2) business days) after the same is prepared and publicly distributed, filed with the SEC, or received by the Company, one copy of each Registration Statement and any amendment thereto, each preliminary prospectus and prospectus and each amendment or supplement thereto, and (ii) promptly (but in no event more than two (2) business days) after the Registration Statement is declared effective by the SEC, such number of copies of a prospectus, including a preliminary prospectus, and all amendments and supplements thereto and such other documents as the Investor may reasonably request in order to facilitate the disposition of the Registrable Securities owned by the Investor. The Company will immediately notify the Investor by facsimile of the effectiveness of each Registration Statement or any post-effective amendment. The Company will promptly (but in no event more than five (5) business days) respond to any and all comments received from the SEC (which comments shall promptly be made available to the Investor upon request), with a view towards causing each Registration Statement or any amendment thereto to be declared effective by the SEC as soon as practicable, shall promptly file an acceleration request as soon as practicable (but in no event more than two (2) business days) following the resolution or clearance of all SEC comments or, if applicable, following notification by the SEC that any such Registration Statement or any amendment thereto will not be subject to review and shall promptly file with the SEC a final prospectus as soon as practicable (but in no event more than two (2) business days) following receipt by the Company from the SEC of an order declaring the Registration Statement effective.

d. The Company shall use reasonable efforts to (i) register and qualify the Registrable Securities covered by the Registration Statement under such other securities or "blue sky" laws of such jurisdictions in the United States as the Investor reasonably requests, (ii) prepare and file in those jurisdictions such amendments (including post-effective amendments) and supplements to such registrations and qualifications as may be necessary to maintain the effectiveness thereof during the Registration Period, (iii) take such other actions as may be necessary to maintain such registrations and qualifications in effect at all times during the Registration Period, and (iv) take all other actions reasonably necessary or advisable to qualify the Registrable Securities for sale in such jurisdictions; provided, however, that the Company shall not be required in connection therewith or as a condition thereto to (a) qualify to do business in any jurisdiction where it would not otherwise be required to qualify but for this Section 3(d), (b) subject itself to general taxation in any such jurisdiction, (c) file a general

All reasonable expenses, other than underwriting discounts and commissions, incurred in connection with registrations, filings or qualifications pursuant to Sections 2 and 3, including, without limitation, all registration, listing and qualification fees, printers and accounting fees, and the fees and disbursements of counsel for the Company, shall be borne by the Company.

6. INDEMNIFICATION.

In the event any Registrable Securities are included in a Registration Statement under this Agreement:

a. To the extent permitted by law, the Company will indemnify, hold harmless and defend (i) the Investor who holds such Registrable Securities and (ii) the directors, officers, partners, employees, agents and each person who controls the Investor within the meaning of the 1933 Act or the Securities Exchange Act of 1934, as amended (the "1934 Act"), if any, (each, an "Indemnified Person"), against any joint or several losses, claims, damages, liabilities or expenses (collectively, together with actions, proceedings or inquiries by any regulatory or self-regulatory organization, whether commenced or threatened, in respect thereof, "Claims") to which any of them may become subject insofar as such Claims arise out of or are based upon: (i) any untrue statement or alleged untrue statement of a material fact in a Registration Statement or the omission or alleged omission to state therein a material fact required to be stated or necessary to make the statements therein not misleading; (ii) any untrue statement or alleged untrue statement of a material fact contained in any preliminary prospectus if used prior to the effective date of such Registration Statement, or contained in the final prospectus (as amended or supplemented, if the Company files any amendment thereof or supplement thereto with the SEC) or the omission or alleged omission to state therein any material fact necessary to make the statements made therein, in light of the circumstances under which the statements therein were made, not misleading; or (iii) any violation or alleged violation by the Company of the 1933 Act, the 1934 Act, any other law, including, without limitation, any state securities law, or any rule or regulation thereunder relating to the offer or sale of the Registrable Securities (the matters in the foregoing clauses (i) through (iii) being, collectively, "Violations"). The Company shall reimburse the Indemnified Person, promptly as such expenses are incurred and are due and payable, for any reasonable legal fees or other reasonable expenses incurred by the Indemnified Person in connection with investigating or defending any such Claim. Notwithstanding anything to the contrary contained herein, the indemnification agreement contained in this Section 6(a): (i) shall not apply to a Claim arising out of or based upon a Violation which occurs in reliance upon and in conformity with information furnished in writing to the Company by any Indemnified Person expressly for use in connection with the preparation of such Registration Statement or any such amendment thereof or supplement thereto, if such prospectus was timely made available by the Company pursuant to Section 3(c) hereof; (ii) shall not apply to amounts paid in settlement of any Claim if such settlement is effected without the prior written consent of the Company, which consent shall not be unreasonably withheld; and (iii) with respect to any preliminary prospectus, shall not inure to the benefit of any Indemnified Person if the untrue statement or omission of material fact contained in the preliminary prospectus was corrected on a timely basis in the prospectus, as then amended or supplemented, such corrected prospectus was timely made available by the Company pursuant to Section 3(c) hereof, and the Indemnified Person was promptly advised in writing not to use the incorrect prospectus prior to the use giving rise to a Violation and such

Indemnified Person, notwithstanding such advice, used it. Such indemnity shall remain in full force and effect regardless of any investigation made by or on behalf of the Indemnified Person.

b. In connection with any Registration Statement in which the Investor are participating, the Investor agrees to indemnify, hold harmless and defend, to the same extent and in the same manner set forth in Section 6(a), the Company, each of its directors, each of its officers who signs the Registration Statement, each person, if any, who controls the Company within the meaning of the 1933 Act or the 1934 Act, any underwriter and any other shareholder selling securities pursuant to the Registration Statement or any of its directors or officers or any person who controls such shareholder or underwriter within the meaning of the 1933 Act or the 1934 Act (collectively and together with an Indemnified Person, an "Indemnified Party"), against any Claim to which any of them may become subject, under the 1933 Act, the 1934 Act or otherwise, insofar as such Claim arises out of or is based upon any Violation by such Investor, in each case to the extent (and only to the extent) that such Violation occurs in reliance upon and in conformity with written information furnished to the Company by such Investor expressly for use in connection with such Registration Statement; and such Investor will reimburse any legal or other expenses (promptly as such expenses are incurred and are due and payable) reasonably incurred by them in connection with investigating or defending any such Claim; provided, however, that the indemnity agreement contained in this Section 6(b) shall not apply to amounts paid in settlement of any Claim if such settlement is effected without the prior written consent of such Investor, which consent shall not be unreasonably withheld; provided, further, however, that such Investor shall be liable under this Agreement (including this Section 6(b) and Section 7) for only that amount as does not exceed the net proceeds to such Investor as a result of the sale of Registrable Securities pursuant to such Registration Statement. Notwithstanding anything to the contrary contained herein, the indemnification agreement contained in this Section 6(b) with respect to any preliminary prospectus shall not inure to the benefit of any Indemnified Party if the untrue statement or omission of material fact contained in the preliminary prospectus was corrected on a timely basis in the prospectus, as then amended or supplemented.

c. Promptly after receipt by an Indemnified Person or Indemnified Party under this Section 6 of notice of the commencement of any action (including any governmental action), such Indemnified Person or Indemnified Party shall, if a Claim in respect thereof is to be made against any indemnifying party under this Section 6, deliver to the indemnifying party a written notice of the commencement thereof, and the indemnifying party shall have the right to participate in, and, to the extent the indemnifying party so desires, jointly with any other indemnifying party similarly noticed, to assume control of the defense thereof with counsel mutually satisfactory to the indemnifying party and the Indemnified Person or the Indemnified Party, as the case may be; provided, however, that an Indemnified Person or Indemnified Party shall have the right to retain its own counsel with the fees and expenses to be paid by the indemnifying party, if, in the reasonable opinion of counsel retained by the indemnifying party, the representation by such counsel of the Indemnified Person or Indemnified Party and the indemnifying party would be inappropriate due to actual or potential differing interests between such Indemnified Person or Indemnified Party and any other party represented by such counsel in such proceeding. The indemnifying party shall pay for only one separate legal counsel for the Indemnified Persons or the Indemnified Parties, as applicable, and such legal counsel shall be selected by the Investor if the Investor is entitled to indemnification

hereunder, or the Company, if the Company is entitled to indemnification hereunder, as applicable. The failure to deliver written notice to the indemnifying party within a reasonable time of the commencement of any such action shall not relieve such indemnifying party of any liability to the Indemnified Person or Indemnified Party under this Section 6, except to the extent that the indemnifying party is actually prejudiced in its ability to defend such action. The indemnification required by this Section 6 shall be made by periodic payments of the amount thereof during the course of the investigation or defense, as such expense, loss, damage or liability is incurred and is due and payable.

7. CONTRIBUTION.

To the extent any indemnification by an indemnifying party is prohibited or limited by law, the indemnifying party agrees to make the maximum contribution with respect to any amounts for which it would otherwise be liable under Section 6 to the fullest extent permitted by law; provided, however, that (i) no contribution shall be made under circumstances where the maker would not have been liable for indemnification under the fault standards set forth in Section 6, (ii) no seller of Registrable Securities guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the 1933 Act) shall be entitled to contribution from any seller of Registrable Securities who was not guilty of such fraudulent misrepresentation, and (iii) contribution (together with any indemnification or other obligations under this Agreement) by any seller of Registrable Securities shall be limited in amount to the net amount of proceeds received by such seller from the sale of such Registrable Securities.

8. REPORTS UNDER THE 1934 ACT.

With a view to making available to the Investor the benefits of Rule 144 promulgated under the 1933 Act or any other similar rule or regulation of the SEC that may at any time permit the Investor to sell securities of the Company to the public without registration ("Rule 144"), the Company agrees to:

- a. make and keep public information available, as those terms are understood and defined in Rule 144;
- b. file with the SEC in a timely manner all reports and other documents required of the Company under the 1933 Act and the 1934 Act so long as the Company remains subject to such requirements and the filing of such reports and other documents is required for the applicable provisions of Rule 144; and
- c. furnish to the Investor so long as the Investor owns Registrable Securities, promptly upon request, (i) a written statement by the Company that it has complied with the reporting requirements of Rule 144, the 1933 Act and the 1934 Act, (ii) a copy of the most recent annual or quarterly report of the Company and such other reports and documents so filed by the Company, and (iii) such other information as may be reasonably requested to permit the Investor to sell such securities pursuant to Rule 144 without registration.

9. ASSIGNMENT OF REGISTRATION RIGHTS.

The rights under this Agreement shall be automatically assignable by the Investor to any transferee of all or any portion of the Note if: (i) the Investor agrees in writing with the transferee or assignee to assign such rights, and a copy of such agreement is furnished to the Company within a reasonable time after such assignment, (ii) the Company is, within a reasonable time after such transfer or assignment, furnished with written notice of the name and address of such transferee or assignee, (iii) at or before the time the Company receives the written notice contemplated by clause (ii) of this sentence, the transferee or assignee agrees in writing with the Company to be bound by all of the provisions contained herein, and (iv) such transferee shall be an "accredited investor" as that term defined in Rule 501 of Regulation D promulgated under the 1933 Act.

10. AMENDMENT OF REGISTRATION RIGHTS.

Provisions of this Agreement may be amended and the observance thereof may be waived (either generally or in a particular instance and either retroactively or prospectively), only with written consent of the Company and the Investor. Any amendment or waiver effected in accordance with this Section 10 shall be binding upon the Investor and the Company.

11. MISCELLANEOUS.

a. A person or entity is deemed to be a holder of Registrable Securities whenever such person or entity owns of record such Registrable Securities. If the Company receives conflicting instructions, notices or elections from two or more persons or entities with respect to the same Registrable Securities, the Company shall act upon the basis of instructions, notice or election received from the registered owner of such Registrable Securities.

b. All notices and other communications hereunder shall be in writing or by telecopy, and shall be deemed to have been duly made when delivered in person or sent by telecopy, same day or overnight courier, or 72 hours after having been deposited in the United States registered or certified mail return receipt requested, postage prepaid, to a party at the address set forth below (which may be changed in accordance with these notice procedures):

If to the Company:

Earth Biofuels, Inc.
3001 Knox Street, Suite 403
Dallas, TX 75205
Fax Number: (214) 389-9805
Attention: Chief Executive Officer

With a copy to:

Roger A. Crabb
Scheef & Stone, LLP
5956 Sherry Lane, Suite 1400
Dallas, TX 75225
Fax number: (214) 706-4242

If to the Investor:

Tom Groos
161 Ottawa St. NW, Suite 502
Grand Rapids, Michigan 49503
Fax number: (616) 831-6454

c. Failure of any party to exercise any right or remedy under this Agreement or otherwise, or delay by a party in exercising such right or remedy, shall not operate as a waiver thereof.

d. This Agreement shall be governed by and construed in accordance with the laws of the State of Texas. In the event of a dispute involving this Agreement or any other instruments executed in connection herewith, the parties irrevocably agree that exclusive venue for such dispute shall lie in any court of competent jurisdiction in Dallas County, Texas, and the parties waive any claim that such forum is inappropriate or inconvenient.

e. In the event that any provision of this Agreement is invalid or unenforceable under any applicable statute or rule of law, then such provision shall be deemed inoperative to the extent that it may conflict therewith and shall be deemed modified to conform with such statute or rule of law. Any provision hereof which may prove invalid or unenforceable under any law shall not affect the validity or enforceability of any other provision hereof.

f. This Agreement constitutes the entire agreement among the parties hereto with respect to the subject matter hereof. There are no restrictions, promises, warranties or undertakings, other than those set forth or referred to herein and therein. This Agreement supersedes all prior agreements and understandings among the parties hereto with respect to the subject matter hereof.

g. Subject to the requirements of Section 9 hereof, this Agreement shall be binding upon and inure to the benefit of the parties and their successors and assigns.

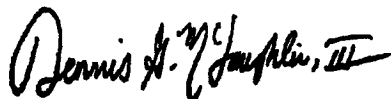
h. The headings in this Agreement are for convenience of reference only and shall not form part of, or affect the interpretation of, this Agreement.

i. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original but all of which shall constitute one and the same agreement and shall become effective when counterparts have been signed by each party and delivered to the other parties. This Agreement, once executed by a party, may be delivered to the other parties hereto by facsimile transmission of a copy of this Agreement bearing the signature of the party so delivering this Agreement.

j. Each party shall do and perform, or cause to be done and performed, all such further acts and things, and shall execute and deliver all such other agreements, certificates, instruments and documents, as the other parties may reasonably request in order to carry out the intent and accomplish the purposes of this Agreement and the consummation of the transactions contemplated hereby.

IN WITNESS WHEREOF, the Company and the Investor have caused this Agreement to be duly executed as of the date first above written.

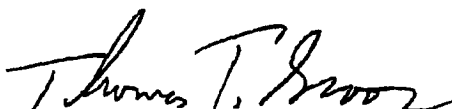
EARTH BIOFUELS, INC.

By: 

Name: Dennis G. McLaughlin, III

Title: Chief Executive Officer

TOM GROOS


Tom Groos, individually